

The availability of firearms to suicidal persons poses a high risk for attempt and completion of a suicide. Firearm suicides, especially among young persons, are likely to be based on an impulsive decision. The lethality of firearms as a suicide method leads to death in most cases because of the severity of the injury and the small window of opportunity for rescue. Social isolation, particularly of older persons, makes rescue even more unlikely.

In addition to firearms, females tended to use biological and medical substances quite frequently (34% of all female suicides). In contrast, males tended to die by hanging, strangulation, or suffocation if they used a suicide method other than firearm discharge.

Characteristics of hospitalizations due to self-inflicted injury differed greatly from those of suicide deaths. In the time period 1997 through 2001, about 39 percent of North Carolinians hospitalized due to intentional self-injury were male and about 61 percent were female. Nationwide, the percentages of males and females hospitalized with self-inflicted injuries were very similar.

In North Carolina, more than four intentional self-injury hospitalizations were reported for every one completed suicide. The ratios of self-inflicted injury hospitalization to suicide death, however, differed considerably for specific age groups. For persons age 24 and younger, the ratio was about eight intentional self-injury hospitalizations to one completed suicide, but for older persons the ratio changed to about one completed suicide to one hospitalization. The Goldman Institute of Aging mentions, as reasons for the differences in ratios, that older persons who died by suicide tended to choose a more lethal suicide method, were socially more isolated, and had lower recuperative ability compared to younger persons.²⁷

The ratio of self-inflicted injury hospitalization to suicide death for male North Carolinians was two self-injury hospitalizations to one completed suicide, and for females it was thirteen self-injury hospitalizations to one completed suicide. It could be hypothesized that self-injury by females allows for others to step in and help, while males appear to be more determined to end their lives.

For the study period, the highest self-injury hospitalization rates were found for young and middle-aged North Carolinians (ages 15-44). Female hospitalization rates were greater than male hospitalization rates up to age 64, then male rates surpassed female rates.

In North Carolina, about 83 percent of all self-inflicted injuries resulting in a hospital admission were due to poisoning. Poisoning was the method of self-injury chosen most frequently in all age groups studied, and cutting and piercing was chosen second. Tranquilizers and other psychotropic agents were used most frequently in poisonings that led to hospitalization, followed by analgesics, antipyretics, and anti-rheumatics. Of all 10-24 year olds that were hospitalized due to poisoning, 41 percent had used analgesics, antipyretics, or antirheumatics. Older North Carolinians hospitalized due to poisoning had used tranquilizers and other psychotropic agents most frequently (45% of 25-44 year olds, 50% of 45-64 year olds, and 45% of persons age 65 and older). In a study published in the early 1990s, psychotropics and analgesics were found to be the main drugs used for self-poisoning attempts in adults resulting in a hospitalization both in Western Europe and North America.²⁸ In North Carolina, older persons hospitalized with self-inflicted injuries were more likely to have used firearms, or other methods, than younger persons.

The U.S. Department of Health and Human Services *Healthy People 2010*,²⁹ a comprehensive national plan for health promotion and disease prevention, lists health objectives in 28 focus areas. Focus area 18 concentrates on mental health and mental disorders. It is here that objectives concerning suicide and suicide attempts were addressed. Objective 18-1 calls for a reduction of the age-adjusted suicide rate to 5.0 suicides per 100,000 population. North Carolina's age-adjusted suicide rate in the study period was 11.7 for 1997, 10.8 for 1998, 11.0 for 1999, 11.7 for 2000, and 12.0 for 2001, more than two times the Healthy People 2010 target rate.

Objective 18-2 calls for a reduction in the rate of suicide attempts by adolescents to a 12-month average of one percent. For this measure, data from the YRBS were used. The 2001 North Carolina YRBS did not include the question asking if a high school student had